

Genomics of Cancer Related Target Protein: PO88

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YMW4_YEAST is a yeast protein also known as 'Hypothetical 16.0 KD protein in ABF2-CHL12 intergenic region' or more simply as "PO88". It is the ortholog of the newly discovered human protein TFAR19. Dr. Liu, *et. al.* reported in (Biochem. Biophys. Res. Commun. Jan. 254: (1): 203-210, 1999), the cloning of TFAR19 from human leukemia cell line TF-1 as well as finding 'its expression is upregulated in the tumor cells undergoing apoptosis. Over expression of TFAR19 in tumor cells enhances apoptosis triggered by growth factor or serum deprivation. PO88 was cloned into an IPTG inducible bacterial expression plasmid 'pET-Tev' 5' to a sequence encoding a histidine tag and a Tev protease recognition site. After expression in a BL21-DE3-pLysS host strain and lysis, PO88 was purified on a Q-Sepharose column followed by Phenyl-Sepharose, Tev protease digestion and a Nickel column from which the flow through was collected. LC-MS analysis verified PO88 by size. PO88 was then concentrated to approximately 7.8 mg/ml and hanging drop crystallization wells were set up with Hampton Research Crystal Screen 1 and Crystal Screen 2 in duplicate: one set was then incubated at room temperature and the other set incubated at 4 degrees C. Crystal trays are periodically examined for crystal growth.